

Application No. 10/798,389
Amendment dated August 18, 2006

Docket No.: 4799-0112P

Please amend the claims as follows:

1. (Currently Amended) A printed circuit board (PCB) for a modular connector comprising:
circuit elements;
a plurality of contacts mounted on said PCB for contacting conductors of a mating connector, wherein at least some of said contacts are electrically connected to said circuit elements, and wherein original crosstalk occurs between at least some conductors of said mating connector;
a first section of said PCB having a first dielectric constant (DK);
a second section of said PCB having a second DK lower than the first DK, and provided above or below the said first section; and
at least one crosstalk compensation element provided in the utilizing said first section to provide compensating crosstalk to offset the original crosstalk, ;—and wherein said circuit elements are at least one circuit element provided in the said second section.
2. (Currently Amended) The PCB of claim 1, wherein the first section includes:
a first laminate including a substrate having the first DK and a metal sheet attached to at least one surface of said substrate;
a first prepreg above the first laminate; and
a second prepreg below the first laminate.
3. (Original) The PCB of claim 2, wherein the first and second prepreps have the first DK.

Application No. 10/798,389
Amendment dated August 18, 2006

Docket No.: 4799-0112P

4. (Original) The PCB of claim 3, wherein the at least one crosstalk compensation element is provided at a metal sheet of the first laminate.
5. (Original) The PCB of claim 3, wherein the second section includes:
 - a third prepreg above the first prepreg;
 - a first metal layer above the third prepreg;
 - a fourth prepreg below the second prepreg; and
 - a second metal layer below the fourth prepreg.
6. (Original) The PCB of claim 5, wherein the third and fourth prepreps have the second DK.
7. (Currently Amended) The PCB of claim 6, wherein the at least one circuit element is provided at the first and/or second metal layer, and at least a portion of the at least one crosstalk compensation element is provided at a metal sheet and/or ~~a dielectric~~ the substrate of the first laminate.
8. (Original) The PCB of claim 3, wherein the second section includes:
 - a second laminate above the first prepreg; and
 - a third laminate below the second prepreg,wherein the second and third laminates have the second DK.

Application No. 10/798,389
Amendment dated August 18, 2006

Docket No.: 4799-0112P

9. (Original) The PCB of claim 8, wherein each of the second and third laminates includes a dielectric material substrate and a single metal sheet on the substrate.
10. (Currently Amended) The PCB of claim 9, wherein the at least one circuit element is provided at the single metal sheet of the second and/or third laminate, and at least a portion of the at least one crosstalk compensation element is provided at a metal sheet and/or a dielectric the substrate of the first laminate.
11. (Currently Amended) The PCB of claim 1, wherein the second section includes:
a first laminate including a substrate having the second DK and a metal sheet attached to at least one surface of said substrate;
a first prepreg above the first laminate; and
a second prepreg below the first laminate.
12. (Original) The PCB of claim 11, wherein the first and second prepreps have the second DK.
13. (Original) The PCB of claim 12, wherein the first section includes:
a third prepreg above the first prepreg;
a first metal layer above the third prepreg;
a fourth prepreg below the second prepreg; and
a second metal layer below the fourth prepreg.

Application No. 10/798,389
Amendment dated August 18, 2006

Docket No.: 4799-0112P

14. (Original) The PCB of claim 13, wherein the third and fourth prepregs have the first DK.
15. (Currently Amended) The PCB of claim 14, wherein at least a portion of the at least one crosstalk compensation element is provided at the first and/or second metal layer, and the at least one circuit element is provided at a metal sheet of the first laminate.
16. (Currently Amended) A printed circuit board (PCB) comprising:
a first section having a first dielectric constant (DK);
a second section having a second DK lower than the first DK, and provided above or below the first section;
at least one crosstalk compensation element provided in the first section; and
at least one circuit element provided in the second section. ~~The PCB of claim 1,~~ wherein the first DK is in the range of 4.0 – 5.0, and the second DK is in the range of 2.5 – 3.5.
17. (Currently Amended) A printed circuit board (PCB) comprising:
a first section having a first dielectric constant (DK);
a second section having a second DK lower than the first DK, and provided above or below the first section;
at least one crosstalk compensation element provided in the first section; and

Application No. 10/798,389
Amendment dated August 18, 2006

Docket No.: 4799-0112P

at least one circuit element provided in the second section. ~~The PCB of claim 1,~~ wherein the at least one crosstalk compensation element includes a plurality of capacitors placed at different compensation stages of the PCB.

18-29. (Canceled)

30. (New) The PCB of claim 1, wherein the first DK is in the range of 4.0 – 5.0, and the second DK is in the range of 2.5 – 3.5.

31. (New) The PCB of claim 1, wherein the at least one crosstalk compensation element includes a plurality of capacitors placed at different compensation stages of the PCB.

32. (New) The PCB of claim 1, wherein the at least one crosstalk compensation element includes a first capacitor for providing a first phase of compensating crosstalk to offset the original crosstalk and a second capacitor for providing a second phase of compensating crosstalk to offset the original crosstalk.

33. (New) The PCB of claim 1, wherein said modular connector is a modular jack.